

REMARKS/ARGUMENTS

Claims 11-42 are pending. No claims has been amended, added, or canceled.

Applicant thanks the Examiner for allowing claims 32-37 and indicating claims 16-19, 26-29 and 40-42 include allowable subject matters.

Claims 11-15, 20-25, 30-31 and 38-39 are rejected under 35 U.S.C. §102(e) as being anticipated by Harrison (U.S. Patent No. 5,926,047). Applicant traverses the rejection for following reasons. Applicant respectfully submits that the Examiner has taken consistent positions that should be clarified. For example, the Examiner indicated that a loss of signal detector 70 of Harrison constitutes a digital locking circuit on page 2 of the Office Action. However, the Examiner restated that the loss of signal detector 70 is included in an analog locking circuit in line 2, on page 3 of the Office Action. The Examiner also indicated that an output signal of the charge pump 67 of Harrison corresponds to a DLL clock signal output from the digital locking circuit of the claimed invention in lines 2 and 3, on page 2 of the Office Action. In lines 7 to 9, on page 2 of the Office Action, the Examiner indicated that the output signal of the charge pump 67 of Harrison is considered as a feedback signal which corresponds to an output signal of the analog locking circuit of the claimed invention, however.

Furthermore, the Examiner indicated that a phase detector 54 of Harrison is included in the digital locking circuit in lines 3 and 4, on page 2 of the Office Action. In lines 10 to 13, on page 2 of the Office Action, the Examiner states that the phase detector 54 of Harrison corresponds to a phase detector 260 of the claimed invention which is included in the analog locking circuit. Therefore, it is unclear whether the loss of signal detector 70, the charge pump 67, and the phase detector 54 of Harrison are included in the digital locking circuit or in the analog locking circuit. Therefore, Applicant would like to request the Examiner to clarify his position on the above points, so that Applicant may make an appropriate response against the Examiner's rejection.

Regarding to claims 12 and 23, the Examiner indicated that the output signal of the element 67 of Harrison is used by the digital clock circuit (66, 68, 70, and 67) in lines 7 to 9 of the Office Action. However, the output of the element 67 of Harrison is only input to the

voltage controlled delay 44 which is indicated as the analog locking circuit by the Examiner. Therefore, Applicant respectfully submits that the Examiner has again not made his prima facie rejection. .

Regarding to claims 13 and 24, the Examiner indicated that the phase detector 54 of Harrison detects a phase difference between the delayed version of the DLL clock signal and the external clock signal. The Examiner indicated that the output signal 180 of 40 corresponds to the delayed version of the DLL clock signal and the output signal T0 of 40 corresponds to the external clock. The vernier voltage-controlled delay 40 receives the output of the voltage controlled delay 44. The voltage controlled delay 44 receives the output signal of the charge pump 47 and the delayed external clock delayed by 42. Therefore, the vernier voltage-controlled delay 40 merely receives the delayed external clock signal. The output T0 of 40 is cannot be considered as corresponding to the external clock CCLKREF. Accordingly, the phase detector 54 of Harrison is different from the phase detector 260 of the claimed invention. For the reasons set forth above, Applicant respectfully submits that the Examiner has not shown that Harrison anticipates the claimed invention.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

SEONG-HOON LEE

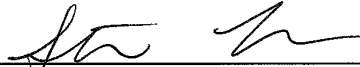
Application No. 09/970,388

Reply to Office Action of September 15, 2006

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

Dated: 12/15/06 By: 
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